(19) World Intellectual Property **Organization** International Bureau





(43) International Publication Date 26 February 2004 (26.02.2004)

PCT

(10) International Publication Number WO 2004/016623 A1

(51) International Patent Classification7: C07D 501/00, A61K 31/546

LUDESCHER, Johannes [AT/AT]; Kleinsöll 101, A-6252 Breitenbach (AT).

(21) International Application Number:

PCT/EP2003/008944

(22) International Filing Date: 12 August 2003 (12.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

AT

AT

(30) Priority Data:

1223/2002 13 August 2002 (13.08.2002) 1588/2002 18 October 2002 (18.10.2002)

(71) Applicant (for all designated States except US): SANDOZ GMBH [AT/AT]; Biochemiestrasse 10, A-6250 Kundl (AT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KREMMINGER, Peter [AT/AT]; Weitschön 86, 6250 Kundl (AT). WOLF, Siegfried [AT/AT]; Judenwiese 4a, 6230 Brixlegg (AT). (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectuel Property, CH-4002 Basel (CH).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW.

(84) Designated States (regional): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A CEFDINIR INTERMEDIATE

(57) Abstract: 7-[2-(2-aminothiazol-4-yl)-2-(methylcarbonyloxyimino)acetamido]-3-vinyl-cephem-4-carboxylic acid of formula (I), in the form of a crystalline salt and use thereof, e.g. in the preparation of pure cefdinir. In another aspect this invention relates to the compound of formula (I) in the form of a salt, optionally in crystalline form, wherein the salt is selected from the group consisting of phosphate, hydrogen phosphate, mesylate, tosylate, sulfate, hydrogen sulfate and sulfamate.